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time only ·5, notwithstanding the magnitude of the eclipse was so great as ·927. In the present case the humidity was apparently great. I wonder what else could cause the less decrease of the column, except the absence of clear sky, and the presence of clouds between the Sun's rays and the Earth, which may probably impede terrestrial radiation also.

Meteorological Observations taken during the time of the Eclipse, 6th June, 1872.

Hours. h m	Barometer reduced to 32°. inches	Dry bulb. °	Wet bulb. °	Humidity. cents	Solar radiation thermometer. °	Kind of clouds.	Clear sky. cents	Direction of wind. points
6 3	29·687	88	82	76	51	cu	60	S.
6 13	29·689	88	82	76	51·4	cu	20	S. by W.
6 23	29·695	88·4	82	76	52·4	cu	20	W.S.W.
6 33	29·695	88·2	82	76	51·6	cu	30	S.S.W.
6 44	29·697	88	81·5	74	51·2	cu	20	S.
6 43	29·699	88	81·5	74	50·5	cu	20	S.
7 3	29·699	88	81·5	74	50	N.	,,	S.
7 13	29·701	88	81·5	72	49·5	N.	,,	S.W.
7 23	29·705	87·8	81·4	76	50·5	N.	,,	S.
7 33	29·709	87·7	81·3	76	52·3	cu	20	S.
7 43	29·709	87·7	81	72	54	cu	20	S.W. by W
7 53	29·709	88	81·4	72	55·4	cu	20	S.W.
8 3	29·711	88	81·7	76	57·3	cu	30	S.W. by W.
8 13	29·715	88	81·8	76	59·3	cu	30	S.W. by W.
8 23	29·721	88	81·8	76	63	cu	50	S.W.
8 30	29·720	88·6	81·7	73	76	cu	50	W. by S.

Observations made during the Eclipse of June 6, 1872. By N. R. Pogson, Esq., Government Astronomer at Madras.

(*From a Letter to the Astronomer Royal.*)

I take the earliest opportunity of informing you of our results on the occasion of the annular eclipse of the Sun on the 6th.

Availing myself of your kind encouragement to make use of the Browning reflector, I got the Government to sanction the immediate erection of a sliding flat-roofed room, a dark room, and a printing room, over the transit-circle room, and got all completed just, and only just, in time. My son, assisted by Mr. F. Doderet, got nine photographs altogether—four during the important time. I enclose copies of six: No. 1, partial, before centre; 2, just as the ring was forming, when the coronal light,

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shining behind the Moon's disk, made the ring appear faintly completed before it really was so. This was clearly seen also by Ragoonatha Charry with the Lerebours equatoreal, and even by myself and my son with the finders of the Simms' equatoreal and of the Browning reflector. The photograph shows it, but the negative better still. No. 3 shows the complete ring at central time, 4 near its breaking, 5 at the moment, and 6 a partial phase soon after. Nos. 4 and 5 got taken on the same plate by a mistake, but, by placing one in the centre and painting the other out, there is no confusion. No prominences were seen, either by the eye or in the photographs, though the spectroscope indicated plenty about, especially near the spot shown in No. 4.

I resolved to attempt nothing but the spectroscope, and managed far better than at Avenashy in consequence. I wanted to have had the time of first contact from the spectroscope, by the extinction of the usual bright C, D, and F lines of the chromosphere. I can rarely find any part of the Sun's limb on a fine day at which these are not visible, and I thought that the contact of the limbs should extinguish these; but the Sun was too low to be well got at, and, unless the slit were very accurately over the point of first contact, and reduced in length as well as in breadth till it had nearly become a square, I do not believe in a result. At the first internal contact (just after a peep in the finder had shown me the Moon's limb lighted up by the corona) I saw all the dark lines reversed and bright, but for less than two seconds; the thinnest thread of sunlight restored them instantly.

I could see no trace of lines on the Moon's dark centre, but probably this was owing to the flash of ring-light having dazzled my eyes too much, or else atmospheric dark lines would, I suppose, have been there. The sight of beauty, above all, was, however, the reversion of the lines at the breaking up of the limb. *All* lighted up, reminding me of the platinum wire in the Oxford heliometer, seen through the object-glass some distance off, when Mr. Johnson was putting on the battery to read the scale. The duration astonished me—five to seven seconds; and they faded out gradually, not momentarily. I had even time to turn the micrometer cross-wires upon the most brilliant line of all, which I took for C at the moment, but which the reading clearly showed was B when all was over.

I think these results will interest you; and besides ordinary records, which were duly cared for and will all be ready in due course, I know of nothing else to be expected from an annular eclipse.

The negatives shall be forwarded with these of the Avenashy expedition as soon as the Report is ready; but these eclipses are fearful interruptions, and Avenashy completely upset all my arrangements for last year, and this one, so far, as well.

Madras Observatory, June 11th, 1872.

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